25—30 calories, but according to H. H. Campbell amounts to 69 calories. The heat content of molten iron at 1,500° would thus amount to 275—280, or correspondingly 310 calories. Practically, however, such a pure iron is not manufactured and, therefore, also the above values (having regard to the great difference which is caused by the questionable latent heats) do not appear quite usable.

But at various times it lias been sought to ascertain the values experimentally, and Professors P. Wiist and L. Laval found from the increase of temperature which weighed quantities of water underwent, from ascertained amounts of molten materials, that the heat content of—

1 kilogramme molten pi^ Iron amoimtxul to a moa.ii of 277 calories 1 ,,
,, stool ,, ,, ,, t'M(> ,,
1 ,, ,, slag ,, „ ,, ">;*(>

Wedding furnishes values for pig iron which are ascertained in similar manner and varied between 258 and 887 calories.

In January, 1902, and later, the author .conducted some similar experiments, the mention of which will possibly possess soino interest, because we can perceive therefrom that the discrepancies in preliminary researches are able to be very small; but in spite of thin the results make no pretension to any kind of absolute exactitude whatever, because tho thermometer is inexact and the method generally could not be further worked out. Wooden buckets woro used for the reception of the water, and indeed these! wore chosou because the metal under research in consequence of tho Leiclen-frostschem phenomenon remains at a white heat for a time under wator, and buckets of other materials would be destroyed, whilst wood was only slightly singed ; but owing to this, as well an to the quite powerful decomposition of the water, which allows a quantity of gas to originate, sources of error are introduced, which could not be further investigated. Indeed, a research was made as to the gas, which consisted of

78-5 per cent. II, I'l per cent. C0a, 9'6 per cent. GO, and 9-5 per cent. N,

but its amount could not be ascertained, since tho apparatus failed and the experiments could not be further pursued.